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(Black outlined amino acids indicate potential regions of conserved sequence; grayed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs. Sequences may be referenced by the SWISSPROT or TREMBL ID.)

	10	20	30	40	
thymosin beta family motif	
NOV1 (2-38)	-ADKPDIG	EIASFNKAKL	KKTEMQE~	NTLLTKEA	IEQEK~ (SEQ ID NO:35)
TYB0_HUMAN(1-38)	-ADKPD	MGEIASFDK	AKLKKTT	EQEKNL	PTKETIEQEK~ (SEQ ID NO:2)
TYB9_BOVIN(1-40)	-ADKPD	LGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:36)
TYB9_PIG(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:37)
TYB4_HUMAN(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:38)
TYB4_MOUSE(7-47)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:39)
TYB4_RABIT(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:40)
TYB4_XENLA(1-39)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:41)
TYBY_HUMAN(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:42)
TYBA_ONCMY(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:43)
TYBB_ONCMY(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:44)
TYBB_LATJA(1-40)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:45)
P97563_RAT(1-39)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:46)
TYBN_HUMAN(1-38)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:47)
O97428_DROME(95-129)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:48)
O97428_DROME(59-89)	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:49)
	-ADKPD	MGEINSF	DKAKLKK	TETQEK	NLPTKETIEQEKQA (SEQ ID NO:50)

On page 10, please replace Table 4 with the following Table 4:

Table 4.

PFAM alignment of a NOV1 polypeptide to the consensus sequence of the thymosin beta family

A3
>PD005116 (Closest domain: TYB0_HUMAN 1-38)
Number of sequences in family: 16
Most frequent protein names: TYB4(4) TYB9(2) TYBB(2)
Commentary (automatic):
THYMOSIN ACETYLATION T-CELL DIFFERENTIATION
IMMUNOPOTENTIATION THYMUS BETA-4 ACTIN-BINDING PROTEIN
BETA
Length = 38
Score = 145 (60.9 bits), Expect = 5e-10
Identities = 32/38 (84%), Positives = 34/38 (89%), Gaps = 1/38 (2%)
NOV1: 2 ADKPDIG EIASFNKAKLKKTEMQE~NTLLTKEAIEQEK 38 (SEQ ID NO:2)
| | | | | + | | | | | + | | | | | | | | | | | | | | | |
Sbjct: 1 ADKPD MGEIASFDKAKLKKTTETQEKNLPTKETIEQEK 38 (SEQ ID NO:51)

Beginning on page 13, kindly replace Table 6 with the following Table 6:

Table 6.

Comparison between a NOV2 polypeptide and mouse ephrin type-A receptor 8 precursor

A4
>ref|NP_031965.1| Eph receptor A8
sp|O09127|EPA8_MOUSE EPHRIN TYPE-A RECEPTOR 8 PRECURSOR (TYROSINE-PROTEIN KINASE
RECEPTOR EEK) (EPH-AND ELK-RELATED KINASE)
gb|AAB39218.1| (U72207) Eph-and Elk-related kinase [Mus musculus]

Serial No. 09/687,276.

Applicant(s): Prayaga *et al.*

Length = 1004

Score = 3036 bits (7128), Expect = 0.0

Identities = 945/992 (95%), Positives = 964/992 (96%), Gaps = 1/992 (0%)

```
NOV2: 1  MAPARGRLPPALWVVTAATAAATCVSAARGEVNLLDTSTIHGDWGWLTYPAHGWDSINEV 60
      ||||| || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 1  MAPARARLSPALWVVTAATAAATCVSAGRGEVNLLDTSTIHGDWGWLTYPAHGWDSINEV 59

NOV2: 61  DESFQPIHTYQVCNVMSPNQNNWLRTSWVPRDGARRVYAEIKFTLRDCNSMPGVLTCKE 120
      |||||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||
Sbjct: 60  DESFRPIHTYQVCNVMSPNQNNWLRTNWVPRDGARRVYAEIKFTLRDCNSIPGVLTCKE 119

NOV2: 121  TFNLYYLESDRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRSVGPPLSKRG 180
      |||||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||
Sbjct: 120  TFNLHYLESDDRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRGVGPPLSKRG 179

NOV2: 181  FYLAFQDIGACLAAILSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 240
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 180  FYLAFQDIGACLAAILSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 239

NOV2: 241  DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGFYKSAPGDQLCARCPPPHSHA 300
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 240  DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACMACELGFYKSAPGDQLCARCPPPHSHA 299

NOV2: 301  APAAQACHCDLSYYRAALDPPSSACTRPPSAPVNLISVNGTSVTLEWAPPLDPGGRSDI 360
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 300  TPAAQTCRCDLSYYRAALDPPSAACTRPPSAPVNLISVNGTSVTLEWAPPLDPGGRSDI 359

NOV2: 361  TYNVAVCRRCPWALSRCEACGSGTRFVPQQTSLVQASLLVANLLAHMNYSFWIEAVNGVSD 420
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 360  TYNVAVCRRCPWALSHCEACGSGTRFVPQQTSLAQASLLVANLLAHMNYSFWIEAVNGVSN 419

NOV2: 421  LSPEPRRAAVVNITTNAAPSQVVVIRQERAGQTSVSLWQEQPNGIILEYEIKYYEK 480
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 420  LSPEPRSAAVVNITTNAAPSQVVVIRQERAGQTSVSLWQEQPNGIILEYEIKYYEK 479

NOV2: 481  DKEMQSYSTLKAVTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 540
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 480  DKEMQSYSTLKAVTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 539

NOV2: 541  RTIVWICLTLITGLVLLLLLLICKKRHCYGSKAFQDSDEEKMHYQNGQAPPPVFLPLHHP 600
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 540  RTIVWICLTLITGLVLLLLLLICKKRHCYGSKAFQDSDEEKMHYQNGQAPPPVFLPLNHP 599

NOV2: 601  PGKLPEPQFYAEPHTYEEPGRAGRSFTREIEASRIHIEKIIGSGDSGEVCYGRLRVPGQR 660
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 600  PGKFPETQFSAEPHTYEEPGRAGRSFTREIEASRIHIEKIIGSGESGEVCYGRQLQVPGQR 659

NOV2: 661  DVPVAIKALKAGYTERQRDFLSEASIMQFDHPNIIIRLEGVVTRGRLAMIVTEYMENG 720
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 660  DVPVAIKALKAGYTERQRDFLSEAAIMQFDHPNIIIRLEGVVTRGRLAMIVTEYMENG 719

NOV2: 721  LDTFLRTHDGQFTIMQLVGMLRGVAGMRYLSDLGYVHRDLAARNVLVDSNLVCKVSDFG 780
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 720  LDAFLRTHDGQFTIVQLVGMLRGVAGMRYLSDLGYIHRDLAARNVLVDGRLVCKVSDFG 779

NOV2: 781  LSRVLEDDPDAAAYTTTGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 840
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Sbjct: 780  LSRALEDDPEAAAYTTTAGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 839

NOV2: 841  NMTNRDVISSVEEGYRLPAPMGCPRALHQLMLDCWHKDRAQRPRFSQIVSVLDALIRSPE 900
      |||||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||+|||
Sbjct: 840  NMTNQDVISSVEEGYRLPAPMGCPRALHQLMLDCWHKDRAQRPRFAHVSVLDALVHSPE 899

NOV2: 901  SLRATATVSRCPPPAFVRSCTDLRGGSGGGGGLTVGDWLD SIRMGRYRDHFAAGGYSSLG 960
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
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Serial No. 09/687,276.
Applicant(s): Prayaga *et al.*

Sbjct: 900 SLRATATVSRCPPPAFARSCFDLRAGGSGNGDLTVGDWLD SIRMGRYRDHFAAGGYSSLG 959
NOV2: 961 MVLRMNAQDVRALGITLMGHQKKILGSIQTMR 992 (SEQ ID NO:5)
|||||
Sbjct: 960 MVLRMNAQDVRALGITLMGHQKKILGSIQTMR 991 (SEQ ID NO:52)

Beginning on page 14, please replace Table 6A with the following Table 6A:

Table 6A.
Comparison between a NOV2 polypeptide and human ephrin receptor EphA8

>ref|NP_065387.1| EphA8; Ephrin receptor EphA8 (eph- and elk-related kinase); Hek3;
eph-, elk-related tyrosine kinase; ephrin receptor EphA8
emb|CAB81612.1| (AL035703) dJ61A9.1 (tyrosine kinase) [Homo sapiens]
Length = 1005

Score = 2054 bits (5262), Expect = 0.0
Identities = 992/992 (100%), Positives = 992/992 (100%)

NOV2 : 1 MAPARGRLPPALWVVTA AAAAATCVSAARGEVNLLDTSTIHGDWGWLTPAHGWDSINEV 60
|||||
Sbjct: 1 MAPARGRLPPALWVVTA AAAAATCVSAARGEVNLLDTSTIHGDWGWLTPAHGWDSINEV 60

NOV2 : 61 DESFQPIHTYQVCNVMSPNQNNWLRTSWVPRDGARRVYAEIKFTLRDCNSMPGVLGTCKE 120
|||||
Sbjct: 61 DESFQPIHTYQVCNVMSPNQNNWLRTSWVPRDGARRVYAEIKFTLRDCNSMPGVLGTCKE 120

NOV2 : 121 TFNLYYLESRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRSVGPLSKRG 180
|||||
Sbjct: 121 TFNLYYLESRDLGASTQESQFLKIDTIAADESFTGADLGVRRLKLNTEVRSVGPLSKRG 180

NOV2 : 181 FYLAFQDIGACLA LSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 240
|||||
Sbjct: 181 FYLAFQDIGACLA LSLRIYYKKCPAMVRNLAAFSEAVTGADSSSLVEVRGQCVRHSEER 240

NOV2 : 241 DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGFYKSAPGDQLCARCPPHSHA 300
|||||
Sbjct: 241 DTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGFYKSAPGDQLCARCPPHSHA 300

NOV2 : 301 APAAQACHCDLSYYRAALDPSSACTRPPSAPVNLISVNGTSVTLEWAPPLDPGGRSDI 360
|||||
Sbjct: 301 APAAQACHCDLSYYRAALDPSSACTRPPSAPVNLISVNGTSVTLEWAPPLDPGGRSDI 360

NOV2 : 361 TYNVACRRCPWALS RCEACGSGTRFVPQQTSLVQASLLVANLLAHMNYSFWIEAVNGVSD 420
|||||
Sbjct: 361 TYNVACRRCPWALS RCEACGSGTRFVPQQTSLVQASLLVANLLAHMNYSFWIEAVNGVSD 420

NOV2 : 421 LSPEPRRAAVVNITTNQAAPSQVVVIRQERAGQTSVSLWQEPEQPNGIILEYEIKYYEK 480
|||||
Sbjct: 421 LSPEPRRAAVVNITTNQAAPSQVVVIRQERAGQTSVSLWQEPEQPNGIILEYEIKYYEK 480

NOV2 : 481 DKEMQSYSTLKA VTTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 540
|||||
Sbjct: 481 DKEMQSYSTLKA VTTTRATVSGLKPGTRYVFQVRARTSAGCGRFSQAMEVETGKPRPRYDT 540

NOV2 : 541 RTIVWICLTITGLVVL LLLLICKKRHCYGSKAFQDSDEEKMHYQNGQAPPPVFLPLHHP 600
|||||
Sbjct: 541 RTIVWICLTITGLVVL LLLLICKKRHCYGSKAFQDSDEEKMHYQNGQAPPPVFLPLHHP 600

NOV2 : 601 PGKLPQFYAE PHTYEEPGRAGRSFTREIEASRIHIEKIIGSGDSGEVCYGRLRVPGQR 660
|||||
Sbjct: 601 PGKLPQFYAE PHTYEEPGRAGRSFTREIEASRIHIEKIIGSGDSGEVCYGRLRVPGQR 660

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NOV2 : 661 DVPVAIKALKAGYTERQRRDFLSEASIMGQFDHPNIIIRLEGVVTRGRLAMIVTEYMENG 720
|||||
Sbjct: 661 DVPVAIKALKAGYTERQRRDFLSEASIMGQFDHPNIIIRLEGVVTRGRLAMIVTEYMENG 720
NOV2 : 721 LDTFLRTHDGQFTIMQLVGMLRGVGAGMRYLSDLGYVHRDLAARNVLVDSNLVCKVSDFG 780
|||||
Sbjct: 721 LDTFLRTHDGQFTIMQLVGMLRGVGAGMRYLSDLGYVHRDLAARNVLVDSNLVCKVSDFG 780
NOV2 : 781 LSRVLEDDPDAAAYTTTGGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 840
|||||
Sbjct: 781 LSRVLEDDPDAAAYTTTGGKIPIRWTAPEAIAFRTFSSASDVWSFGVVMWEVLAYGERPYW 840
NOV2 : 841 NMTNRDVISSVEEGYRLPAPMGCPHALHQLMLDCWHKDRAQRPRFSQIVSVLDALIRSPE 900
|||||
Sbjct: 841 NMTNRDVISSVEEGYRLPAPMGCPHALHQLMLDCWHKDRAQRPRFSQIVSVLDALIRSPE 900
NOV2 : 901 SLRATATVSRCPPPAFVRSCFDLRGGSGGGGGLTVGDWLDSIRMGRYRDHFAAGGYSSLG 960
|||||
Sbjct: 901 SLRATATVSRCPPPAFVRSCFDLRGGSGGGGGLTVGDWLDSIRMGRYRDHFAAGGYSSLG 960
NOV2 : 961 MVLRMNAQDVRLGITLMGHQKKILGSIQTMR 992 (SEQ ID NO:5)
|||||
Sbjct: 961 MVLRMNAQDVRLGITLMGHQKKILGSIQTMR 992 (SEQ ID NO:53)

On page 16, kindly replace the paragraph in Table 7 beginning at line 4 with the following:

A⁶
Table 7 shows multiple sequence alignment of the NOV2 ephrin type-A receptor 8-like protein of the invention, shown as AL035703 Spliced2, with similar proteins. The various aligned proteins are as follows: AL035703 Spliced2 (SEQ ID NO:5) with several proteins: EPA8 Mouse (SEQ ID NO:54), EPA5 Human (SEQ ID NO:55) and EPA5 Chick (SEQ ID NO:56). (Black outlined amino acids indicate potential regions of conserved sequence; greyed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs)

On page 20, please replace the paragraph in Table 9 beginning at line 5 with the following:

A⁷
Table 9 shows sequence alignment between a NOV3 polypeptide with several members of the human fibronectin leucine repeat transmembrane family: AAF28461.1|AF169 (SEQ ID NO:57), AAF28460.1|AF169 (SEQ ID NO:58) and AAF28459.1|AF169 (SEQ ID NO:59). (Black outlined amino acids indicate potential regions of conserved sequence; greyed amino acids represent amino acids conservatively substituted; and non-highlighted amino acids indicate positions in which mutations to a broad range of alternative amino acid residues occurs)

On page 21, kindly replace Table 9. continued with the following Table 9A:

TABLE 9A.

```
>ref|NP_037412.1| fibronectin leucine rich transmembrane protein 1
gb|AAF28459.1|AF169675_1 (AF169675) leucine-rich repeat transmembrane protein FLRT1
[Homo
      sapiens]
Length = 674
```

Score = 1365 bits (3494), Expect = 0.0
Identities = 673/674 (99%), Positives = 674/674 (99%)

NOV3:	1	MVVAHPTATATTTPTATVTATVVMTTATMDLRDWLFLCYGLIAFLTEVIDSTTCPSVCRC	60
Sbjct:	1	MVVAHPTATATTTPTATVTATVVMTTATMDLRDWLFLCYGLIAFLTEVIDSTTCPSVCRC	60
NOV3:	61	DNGFIYCNDRGLTSPADIPDDATTLYLQNNQINNAGIPQDLKTKVNVQVIYLYENDLDE	120
Sbjct:	61	DNGFIYCNDRGLTSPADIPDDATTLYLQNNQINNAGIPQDLKTKVNVQVIYLYENDLDE	120
NOV3:	121	FPINLPRSLRELHLQDNNVRTIARDSLARIPLEKLHLDDNSVSTVSI EEDAFADSKQLK	180
Sbjct:	121	FPINLPRSLRELHLQDNNVRTIARDSLARIPLEKLHLDDNSVSTVSI EEDAFADSKQLK	180
NOV3:	181	LLFLSRNHLSSIPSGLPHTLEELRLDDNRISTIPLHAFKGLNSLRRLVLDGNLLANQRIA	240
Sbjct:	181	LLFLSRNHLSSIPSGLPHTLEELRLDDNRISTIPLHAFKGLNSLRRLVLDGNLLANQRIA	240
NOV3:	241	DDTFSRLQNLTELSLVRNSLAAPPLNLP SAHLQKLYLQDNAISHIPYNTLAKMRELERLD	300
Sbjct:	241	DDTFSRLQNLTELSLVRNSLAAPPLNLP SAHLQKLYLQDNAISHIPYNTLAKMRELERLD	300
NOV3:	301	LSNNNLTTLPRGLFDDLGNLAQLLRNNPWF CGCNLMWLRDWVKARA AVNVNVRGLMCQGP	360
Sbjct:	301	LSNNNLTTLPRGLFDDLGNLAQLLRNNPWF CGCNLMWLRDWVKARA AVNVNVRGLMCQGP	360
NOV3:	361	EKVRGMAIKDITSEMDECFETGPQGGVANAAAKTTASNHASATTPQGS LFTLAKAKRPGLR	420
Sbjct:	361	EKVRGMAIKDITSEMDECFETGPQGGVANAAAKTTASNHASATTPQGS LFTLAKAKRPGLR	420
NOV3:	421	LPDSNIDYPMATGDGAKTLAIHV KALTADSIRITWKATLPASSFRLSWLRLGHSPAVGSI	480
Sbjct:	421	LPDSNIDYPMATGDGAKTLAIHV KALTADSIRITWKATLPASSFRLSWLRLGHSPAVGSI	480
NOV3:	481	TETLVQGDKTEYLLTALEPKSTYI ICMVTMETS NAYVADETPVCAKAETADSYGPTTTLN	540
Sbjct:	481	TETLVQGDKTEYLLTALEPKSTYI ICMVTMETS NAYVADETPVCAKAETADSYGPTTTLN	540
NOV3:	541	QEQNAGPMASLPLAGIIGGAVALVFLFVLGAICWYVHQAGELLTRERAYNRGSRKKDDY	600
Sbjct:	541	QEQNAGPMASLPLAGIIGGAVALVFLFVLGAICWYVHQAGELLTRERAYNRGSRKKDDY	600
NOV3:	601	MESGTTKDNSILEIRGPGLOMLPINPYRAKEEYVVHTIFPSNGSS LCKATHTIGYGTTRG	660
Sbjct:	601	MESGTTKDNSILEIRGPGLOMLPINPYRAKEEYVVHTIFPSNGSS LCKATHTIGYGTTRG	660
NOV3:	661	YRDGGIPDIDYSYT 674 (SEQ ID NO:7)	
Sbjct:	661	YRDGGIPDIDYSYT 674 (SEQ ID NO:60)	

On page 22, please replace the paragraph in Table 10 beginning at line 6 with the following: